Public Works (1898) Department.

G.O., No. 385-6 I ~~[illegible]~~

DATED 10 May ~~April~~ 1898

21/4/98

[Despatch Abstract.]

Periyar Project: Estimate of Rs. 7,750 for reopening the V Branch Channel taking off from the Periyar Main Channel at 20 miles 500 ft. — and for constructing Cross drainage works in it, sanctioned.

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Periyar Project: Forwarding Copy of Procs: sanctioning an estimate of Rs. 7750 for reopening the V Branch channel taking off from the Periyar Main Channel at 20 miles 500 ft. — and for Constructing Cross drainage works in it.

=

Indexed.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

IRRIGATION.
ACCOUNT.

Government {1898} of Madras.

PUBLIC WORKS.

Recd. }
}1898.
Regd. }

Enclosures

Spare copies

G.O., Nos. 385, 386 I., 10th May 1898.

MAY.

Periyar Project

Forwarding copy of Proceedings sanctioning an estimate of Rs. 7,750 for re-grading the 5th Branch channel, taking off from the Periyár main channel at 20 miles 500 feet, —, and for constructing cross drainage works in it.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers:—

From Lieutenant Colonel O. V. BODDY, R.E., Superintending Engineer, VI Circle, to the Chief Engineer for Irrigation, dated Trichinopoly, 5th March 1898, No. 334 M.D.

I have the honour to forward, for your approval and sanction, plans and estimates, the latter amounting to Rs. 6,300, for re-grading the 5th Branch channel taking off from the Periyár Main channel at 20 miles and 500 feet and for the construction of cross drainage works in it.

2. It will be seen from the accompanying map that the supply and surplus channels of the numerous tanks, both Government and inam, through which the branch channel runs have not been provided with permanent cross drainage works, nor has provision been made in the project estimate for these works except for one near the head of the channel. It is indispensable to bank the channel where it passes through inam tanks and also to enable water to be sent down quickly to meet requirements at the tail end of the channel; it is necessary that it should be also banked where it passes through maintained Government tanks. It therefore becomes necessary to construct masonry cross drainage works in the present gaps, the existence of which is considered detrimental to the interests of the channel.

3. A list of such works as are now proposed is appended to the estimate; the statement also shows works that have been already sanctioned and completed and those still under construction. The total cost is estimated to be Rs. 6,300, and the expected return at Rs. 5 per acre is Rs. 7,000. The probable date of completion of the works is 31st March 1899. The report attached to the estimate for each individual work gives further information on the proposed work. The work is classed as remunerative.

Enclosures.

Report to accompany the estimates for constructing an undertunnel for crossing Inam Acham patti and Pannagudi tanks at No. 46·2 and 61·4 chains in the 5th Branch channel.

	RS.
Amount of estimate	2,680

The estimate is for the undertunnels required to pass the channel through the inam tanks Achampatti and Pannagudi as explained in the general report. It will be seen from the accompanying calculations that they have been designed to discharge the maximum quantity of water capable of being discharged by the existing surplus arrangements at the respective flanks. The existing bridge will be demolished and the drop 4 feet will be converted into a double drop of 1½ feet and 2½ feet in order to lower the channel bed and give a greater depth on the superpassage, while the tank bunds will be taken over it.

The works will be carried out in accordance with the standard specifications current in the department.

Report to accompany the estimate for constructing a superpassage at 106th chain in the 5th Branch channel.

	RS.
Amount of estimate	660

The channel runs through Karavanur-Periyakulam tank, and as it has been decided to bank the channel through all tanks, a superpassage is proposed to be constructed for passing that portion of the surplus from Kulamangalam tank that flows to this tank. The width of *superpassage* has been fixed from the width of the dividing dam at the head of the drainage channel entering the tank from Kulamangalam tank.

The work will be carried out in accordance with the standard specification.

Report to accompany the estimate for constructing a superpassage for Andichi urani at 139th chain, 5th Branch channel.

	RS.
Amount of estimate	420

Fifth Branch channel crosses Andichi urani at 139th chain and no provision is made in the blue book for any masonry work for connecting the two halves of the urani.

The present estimate provides for constructing a superpassage for the same.

The work will be carried out in accordance with the standard specifications current in the department.

Report to accompany the estimate for constructing a superpassage and drop combined at 153rd chain, 5th Branch channel.

	RS.
Amount of estimate	520

A portion of the surplus of Inam Veerapandy tank at its left flank enters Inam Pudur tank and the 5th Branch channel crosses the same at 153rd chain. A drop alone is provided in the blue book at the site. It is proposed to construct a superpassage and drop combined as per accompanying plan.

The work will be carried out in accordance with the standard specification current in the department.

Report to accompany the estimate for constructing a syphon culvert at chain 161 in the 5th Branch channel.

	RS.
Amount of estimate	1,350

The surplus arrangement of the tank * are very inadequate and consequently it breaches every year at its left flank. The tank is provided with two calingulas at its right flank, which are capable of discharging 1,500 cubic feet per second.

* Inam Veerapandy tank receives three-fourth of the surplus from Kulamangalam tank which receives all the surplus water from Thandalay tank and also the surplus escaping at the right flank of inam Achampatti tank.

To prevent the channel from being washed away during breach at left flank, it is proposed to construct a syphon culvert as per accompanying plan which is designed to discharge 2,400 cubic feet per second. This will pass any ordinary flood and the conditions of maximum flood are so uncertain owing to inam tanks breaching, &c., that it is not thought expedient to endeavour to provide for them.

The works will be carried out in accordance with the standard specification current in the department.

Report to accompany the estimate for constructing a culvert at 234th chain in the 5th Branch channel.

	RS.
Amount of estimate	540

Portion of the surplus of Alathur tank enters Alathur Chinna Kanmoy or Malli urani, while the other portion enters Chichuluppai tank after crossing 5th Branch channel at 234th chain. The present estimate provides for constructing a culvert for passing the surplus. No provision is made in the blue book for this work.

The work will be carried out in accordance with the standard specifications current in the department.

REPORT to accompany the estimate for constructing palmyrah spouts at chains No. 49 and 175, 5th Branch channel.

	RS.
Amount of estimate	130

The channel crosses the field channel irrigating the wet lands under Inam Achampatti and Veerapaudy tanks, &c. This estimate provides for constructing palmyrah spouts for irrigating the fields.

The work will be carried out in accordance with the standard specification current in the department.

No. 97 E.

GENERAL REPORT to accompany estimates for passing the 5th Branch channel through the tanks in its course and re-grading the same.

	RS.
Amount of estimate	6,300

The 5th Branch channel flows down a ridge dividing two chains of tanks, the stream supplying which constantly crosses and re-crosses the channel.

There are seven points at which drainage crosses the channel and only at one of them, the first, has provision been made in the project revised estimate for the necessary works.

Inam tanks alternate with Government tanks and after full consideration of the cost of the works and benefits to be derived it has been decided to bank the channel throughout and provide the cross drainage works required to pass the customary supply.

The works provided for are as follows :—

	RS.
1. Proposed undertunnel for Achampatti and Panangudi tanks, respectively, at chains 46·2 and 61·4	2,680
2. Superpassage at chain 106	660
3. ,, at ,, 139	420
4. Drop and superpassage at 153rd chain	520
5. Syphon culvert at 161st chain	1,350
6. Undertunnel at chain 234	540
7. Palmyrah spouts at 49 and 175th chains, respectively	130
Total ...	6,300

The object of banking the channel through the maintained Government tanks is to enable water to be passed quickly to the tail end and prevent disputes involving old rights to local drainage. It is unnecessary to point out the necessity of banking it through inam tanks.

A statement is included showing the masonry works, carried out and still to be carried out under the previous sanctioned estimates, the channel not having been dug to its full length; the balance of the earthwork will also be carried out according to the old sanctioned estimates.

This channel is re-graded from 171st chain with a bed fall of 1 in 1,000 instead of 6 feet per mile as originally sanctioned.

STATEMENT showing works carried out and still to be carried out in the 5th Branch channel.

Description of work.

1. Works sanctioned and constructed—
   - (1) Head sluice at 0.
   - (2) Drop No. 1, aqueduct and sluices combined at 300 feet.
   - (3) ,, ,, 2 at 670 feet.
   - (4) ,, ,, 3 at 1,020 feet.
   - (5) Road bridge to Achampatti at 3,750 feet.
   - (6) Drop No. 4, culvert* and sluices combined at 4,620 feet.
   - (7) ,, ,, 5 at 58·5 chain.
   - (8) ,, ,, 6, culvert* and sluices combined at 61·4 chain.
   - (9) ,, ,, 7 at 87th chain.
   - (10) ,, ,, 8, culvert and sluices combined 107.
   - (11) ,, ,, 9 at chain 124.
   - (12) ,, ,, 13 at chain 194.
   - (13) Nattam Road bridge at 217·5 chain.

* Culvert and sluices will be demolished and drop will be converted into a double drop of 1½ and 2½ feet and the surpluses of Achampatti and Panangudi tanks will pass over the channel.

Description of work.

2. Works sanctioned but not completed—

(1) Drop No. 10 at 133rd chain.
(2) „ „ 12 and sluices combined at 171st chain.
(3) „ „ 14 at 214th chain (with sluices combined).
(4) „ „ 15 at 252nd chain (with sluices combined).

3. Works to be sanctioned—

	Amount of estimate.
	RS.
(1) Proposed under tunnel for Achampatti and Panangudi tanks at chains 46·2 and 61·4, respectively	2,680
(2) Proposed palmyrah spouts at chains 49 and 175	130
(3) „ superpassage at chain 106	660
(4) „ „ at „ 139	420
(5) „ drop No. 11 and superpassage at chain 153 ...	520
(6) „ syphon culvert at chain 161	1,350
(7) „ under tunnel at chain 234	540
Grand Total ...	6,300

(Signed) T. W. S. SMYTH,
Ex. Engr., Special Periyár Works.

2nd November 1897.

Estimate Form—Abstract—Classified.

Sub-head.	Names of works.	Amount of estimate for individual work.	Total of sub-heads.	Total for each canal or distributary.	Total of each main head.
1	2	3	4	5	6
	CAPITAL EXPENDITURE NOT CHARGED TO REVENUE.	RS.	RS.	RS.	RS.
	49. *Irrigation.*				
	Periyár Project.				
	Open Capital Account.				
	I. Works.				
	3. Distributaries.				
	5th Branch Channel.				
	Remunerative Work.				
	Re-grading 5th Branch channel and constructing cross drainage works in the same.				
3. Works ..	1. Two undertunnels at chains 46·2 and 61·4 for Achampatti and Panangudi tanks	2,680			
	2. Superpassage at chain 106	660			
	3. „ at „ 139 for Andichi urani ..	420			
	4. Drop and superpassage combined at chain 153, 5th Branch channel	520			
	5. Syphon culvert at chain 161	1,350			
	6. Undertunnel at chain 264 to cross the Alathur surplus odai	540			
	7. Two palmyrah spouts at chains 49 and 175, respectively, each Rs. 65	130			
	Total—I. Works ..		6,300		
	II. Establishment ..		1,449		
	III. Tools and plant ..		1		
	Total estimate ..		7,750		

(Signed) O. V. BODDY, Lieut.-Col., R.E.,
Suptg. Engr., VI Circle.

5th March 1898.

No. 133 I.

Note by the Chief Engineer for Irrigation.

The accompanying estimate of Rs. 6,300 forwarded by the Superintending Engineer, VI Circle, provides for re-grading the 5th Branch channel, taking off from the Periyár main channel at 20 miles 500 feet, Periyár project, and constructing cross drainage works at seven places in the channel, for which, except for the one near the head of the channel, no provision was made in the revised estimate for the project.

2. The channel, which is 5 miles 500 feet in length and is entirely maintained by Government, irrigates 1,400 acres of land, from which a revenue of Rs. 7,000 is expected.

The work may be classed as remunerative and will probably be completed by the 31st March 1899.

The estimate may be sanctioned.

5th April 1898.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

ORDER—No. 385 I., dated 10th May 1898.

The estimate, amounting to Rs. 6,300, or Rs. 7,750 including charges for establishment and tools and plant, for re-grading the 5th Branch channel, taking off from the Periyár main channel at 20 miles 500 feet, Periyár project, and constructing cross drainage works in it, is sanctioned.

2. This sanction is registered as No. 26 I. of 1898–99 and will expire on the 31st March 1899.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India for information.

[Here enter No. 386 I., dated 10th May 1898.]

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, VI Circle,
with 31 enclosures.
" Examiner, Public Works Accounts.

ENDORSEMENT—No. 386 I., dated 10th May 1898.

Forwarded.

(By order.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

Exd. Shaik Karim.

Public Works (1898) Department.

21/4/98

CURRENT No. 3435

From the Chief Engr for Irrgn

Order

No. 133 I

Dated 5th 4-98

Received
Registered } 20-4-98

Enclosures 42 (10 plans)

Spare copies

SUBJECT.

V. Branch channel taking off from the Periyar Main channel and constructing cross drainage works in it. Estimate of Rs 7750 for regrading the — Note recommending for sanction the —

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

His Excellency the Governor.

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

No. 385 I dy 10-5-98

PROCEEDINGS OF THE MADRAS GOVERNMENT.

~~No. 385 I dated 10-5-98~~

Estimate of Rs 7750 for Constg cross Drainage works in the 5th Branch chl from the Periyar main chl. UNDER date the

READ the following

For the Reports ... Estimate

From the Superg. Engineer, Sixth Circle. (A.E. No. 334-M.D. dated 5-3-98).
No 133 I dy 5-4-98

Note by the Chief Engineer for Irrigation.

The accompanying estimate of Rs 6300 forwarded by the Superg. Engineer, Sixth Circle, provides for re-grading the Vth Branch channel, taking off from the Periyar Main Channel at 20 miles 500 ft., Periyar project, and constructing cross drainage works at seven places in the channel, for which, except for the one near the head of the Channel, no provision was made in the revised estimate for the project.

vide ... O

Sam. A.H. 15.4.98

Issue

W.H. 16.4.98

2. The channel, which is 5 m. 500 ft. in length, and is entirely maintained by Government, irrigates 1400 acres of land ~~yielding~~ from which a revenue of Rs 7000 is expected.
The work may be classed as remunerative and will probably be completed by the 31 March 1899.

The estimate may be sanctioned.

...

Order thereon.

The estimate amounting to Rs. 8,300, or Rs. 7,750 including charges for establishment and tools & plant, for regrading the V Branch Channel taking off from the Periyar Main Channel at 20 miles 500 ft., Periyar project, and constructing cross drainage works in it, is sanctioned.

2. This sanction is registered as No. 26 I of 1898-99 and will expire on the 31 March 1899.

3. Ordered that a copy of these Procgs. be forwarded to the Govt. of India, for information.

No. 386 I dated 10-5-98

Endorsement.

~~Forwarded.~~

A.H. 15.4.98

F.E.I. 20.4.98

5/4/98

5.5.98

To The Chief Engineer for Irrigation.
" Supg. Engineer, Sixth Circle with
" Examiner, P.W. Accounts 3/6 enclos.

(31)

E.J. Form No. 1—500—1-11-97

9-3-98

Public Works (1898.) Department.

CURRENT No. 25 M.D.

Order

S.E.1.

The estimates have been checked

S.E.1.
30/3/98.

1-4-98

Submit for approval

E.E.
24/4/98

From

The Supg. Engineer
VI. Circle.

No. 334. R.D.

Dated 5th March 1898.

Received 8 — do —

Enclosures 19. (× Sent Separately)

Spare copies 10 plans

SUBJECT.

V. Branch Channel
Forwards for Sanction plans & Estimate of Rs 6300 for regrading the ——— taking off from the main channel at 20 miles and 500 ft & for the construction of cross drainage works in it. To C.E.I. to check the estimate

8/3/98

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

112

Report to accompany the Estimates for Constructing an under tunnel for crossing Inam Achampatty & Pannaigudi tanks at Chain No ~~45 & 61~~ 46.2 61.4 Chains in the 5th Branch channel

Amount of Estimate Rs 2680

The estimate is for the undertunnels required to pass the channel through the Inam tanks achampatti & Pannaigudi as Explained in the General report. It will be seen from the accompanying calculations that they have been designed to discharge the maximum quantity of water capable of being discharged by the Existing Surplus arrangements at the respective flanks. The Existing bridge will be demolished and the drop 4 ft. will be converted into a double drop of 1½ feet & 2½ feet in order to lower the channel bed and give a greater depth on the Super-passage, while the tank bunds will be taken over it.

The ~~wakes~~ works will be carried out in accordance with the standard specifications current in the department

F W A Smyth
Executive Engineer

2/11/97

1 B 2

Report to accompany the Estimate for Constructing a Superpassage at 106 chain in the 5th Branch Channel

Amount of Estimate Rs 660/–

The Channel Runs through Karanur Periyakulam Tank, and as it has been decided to bank the Channel through all tanks, a Superpassage is proposed to be Constructed for passing that portion of the Surplus ~~from~~ from Kulamangalam Tank that flows to this. The width of Superpassage has been fixed from the width of the dividing dam at the head of the drainage Channel entering the tank from Kulamangalam Tank.

The work will be Carried out in accordance with the Standard Specification.

T. W. S. Smythe
Executive Engineer
Special Periyar Works

2/11/97

SP4

Report to accompany the Estimate for Constructing a Superpassage for Audiety Drain at 139th Chain 5th Branch Channel.

Amount of Estimate Rs 420/-

5th Branch Channel crosses Audiety Drain at 139th chain and no provision is made in the Blue book for any Masonry works for Connecting the two halves of the Drain

The present Estimate provides for Constructing a Superpassage for the same

The work will be Carried out in accordance with the Standard Specifications Current in the Department.

T.W. Smyth
Executive Engineer
Special Power works.

2/11/97

Report to accompany the estimate for constructing a Superpassage and drop Combined at 153rd Chain 5" Branch Chl.

Amount of Este Rs — 520-

A portion of the Surplus of Lam Veerapandy tank at its left flank enters Inam Pudur tank and the 5" Branch channel crosses the same at 153rd Chain. A drop alone is provided in the bluebook at the site. It is proposed to construct a Superpassage and drop combined as per accompanying plan.

The work will be carried out in accordance with the Standard Specification current in the department

T W Smythe
Executive Engineer
Special Periar works

2/11/97

1R6

Report to accompany the Estimate for ~~Constructing~~ a Syphon Culvert at Chain 161 in the 5th Branch Chl.

Amount of Estimate Rs — 1350 —

The surplus arrangement of the tank* are very inadequate and consequently it breaches every year at its left flank. The tank is provided with two Caliugulahs at its right flank which are capable of discharging 1500 c.f. per second.

To prevent the channel from being washed away during breach at left flank it is proposed to construct a Syphon culvert as per accompanying plan which is designed to discharge 2400 cft per second. This will pass any ordinary flood & ~~the~~ conditions of max^m flood are so uncertain owing to Inam tanks breaching &c that is not thought expedient to endeavour to provide for them

The works will be —

* Inam veerapandy tank receives 3/4 of the surplus from Kulamangulam tank which receives all the surplus water from Thandalay tank and also the surplus escaping at the right flank of Inam Achampatti Tank.

will be carried out in accordance with the Standard Specification current in the Department.

2/11/97

F. W. Smyth
Executive Engineer
Special Periar Works

30
3435/58

Report to accompany the Estimate for Constructing a Culvert at 234th Chain in the 5th Branch Channel.

Amount of Estimate Rs 540/-

Portion of the Surplus of Alathur tank enters Alathur Chinna Kanmoy or Malli ean while the other portions enters *Chichuluppai tank after Crossing 5th Branch Channel at 234th Chain. The present Estimate provides for Constructing a Culvert for passing the Surplus. No provision is made in the Blue Book for this work.

*Chichuluppai

The work will be carried out in accordance with the Standard Specifications Current in the Department.

F W Smyth
Executive Engineer
Special Periar Works

2/11/97

No 8

Report to accompany the Estimate for Constructing Palmyrah Spouts at Chain No 49 and 175 5th Branch Channel.

Amount of Estimate Rs 130/-

The Channel crosses the field Channels irrigating the wet lands under Inam Achampatty and Veerapandy Tanks &c. This Estimate provides for Constructing Palmyrah Spouts for irrigating the fields.

The work will be carried out in accordance with the Standard Specification Current in the Department.

2/11/97

T.W. Smyth
Executive Engineer
Special Periyar Works

No. 97 E. dated 2nd November 97

107

General report to accompany Estimates for passing the 5th Branch chl through the tanks in its course and regrading the same.

SUPG. ENGINEER'S OFFICE
No. 1727
8 NOV 1897
P.W.D.
SIXTH CIRCLE.

amount of Estimate Rs. 6300

The Fifth Branch Channel flows down a ridge dividing two chains of tanks, the stream supplying which constantly crosses and recrosses the Channel.

There are seven points at which drainage crosses the channel and only at one of them, the first, has provision been made in the project revised estimate for the necessary works.

Enclosures.
1 Genl Est abst.
7 other detail Ests
10 Tracings plans
18.

Inam tanks alternate with Govt. tanks & after full consideration of the cost of the works and benefits to be derived it has been decided to bank the channel throughout and provide the cross drainage works required to pass the customary supply.

The works provided for are as follows: —— 1. ~~Proposed~~ Proposed

1.	Proposed under tunnel for achampatty & Panangudi tanks, respectively at chains 46.2 + 61.4 —	Rs. 2680 ✓
2.	Superpassage at chain 106. —	660 ✓
3 –	Ditto — at chain 139 —	420 ✓
4 –	Drop & Superpassage at 153 chain —	520 ✓
5 –	Syphon culvert at 161 chain —	1350 ✓
6 –	undertunnel at chain 234 —	540 ✓
7 –	Palmyrah Spouts, at 49 + 175 chain respectively	130 ✓
	Total Rupees —	6300 ✓

The object of Banking the channel through the maintained Govt. tanks is to enable water to be passed quickly to the tail End and prevent disputes involving old rights to local drainage. It is unnecessary to point out the necessity of Banking it through inam tanks.

A Statement is included Showing the masonry works, carried out and still to be carried out under the previous sanctioned estimates, the Channel not having been dug to its full length, the balance of the Earthwork will also be carried out according to the old Sanctioned Estes.

This channel is regraded from 171 chain with a bedfall of 1 in 1000 instead of 6 ft per mile as originally sanctioned.

L W Stronghe[illegible]
Executive Engineer
Spl Renumerate[illegible]

2/10/97

Ocs. 3
3e635/58

Statement showing works, carried out & still to be carried out in the 5" Branch Channel.

Description of work	Remarks.
(1.) Works Sanctioned & Constructed	
1 Headsluice at 0.	
2. Drop No1. aqueduct & Sluice combined at 300 feet.	
3. Drop No2. at 670 feet.	
4. Drop No3. at 1020 feet –	
5. Road Bridge to Achampatti at 3750 feet.	
6. Drop No4 Culvert[x] & Sluices Combined at 4620 feet	x. culvert & sluices will be demolished & drop will be converted into a double drop of 1/2 & 2 1/2 ft & the supplies of Achampatty & Panan-gudy tanks will pass over the Chl.
7. Drop No5 at 58.5 chain	
8. Drop No6. culvert[x] & sluices combined at 61.4 chain	
9. Drop No7 at 87 chain	
10. Drop No8. culvert & sluices combined. 107.	
11. Drop No9 at chain 124.	
12 Drop No13 at chain 194.	
13. Nattam Road Bridge at 217.5 chain.	
(2) Works Sanctioned but not Complete	
1. Drop No10 at 133 chain	
2. Drop No12 & Sluices combined at 171 chain	
~~3. Drop No13. at 194 chain~~	
3 ~~4~~. Drop No14 (+) at 214 chain (with sluices combined,	What is this? [illegible]
4 ~~5~~. Drop No15 at 252 chain — do —.	
(3) Works to be Sanctioned	amount of estimates
1. Proposed undertunnel for Athampatti & Panangudi Tanks at chains 46.2 & 61.4 respectively –	2680.
2 do – Palmyrah spouts at chains 49 & 175 –	130.
3. do – Superpassage at chain 106 –	660.
4 – do. do – at chain 139	420.
5 – do – Drop No11 & Superpassage at chain 153.	520.
6. do. Syphon culvert at chain 161 –	1350.
7. do. Undertunnel at chain 234 ~~chain~~	540.
Grand Total	[illegible]

2/11/97

T.W. Smyth
Executive Engineer

11

ESTIMATE FORM—Abstract—Classified.

Sub-head.	Names of Works.	Amount of Estimate for individual Work.	Total of Sub-heads.	Total for each Canal or Distributary.	Total of each main head.	Remarks.
1	2	3	4	5	6	7
	Print	Rs	Rs			
	Capital Expenditure not charged to Revenue.					
	49 Irrigation					
	Periyar Project					
	Open capital account					
	1. Works					
	3. Distributaries.					
	5th Branch Channel					
	Remunarative work					
	Regrading 5th Branch channel and constructing Cross drainage works in the Same.					
3. Works	1- Two under tunnels at chains 46.2 & 61.4 for Achampatty & Panangudi Tanks	2680				
	2- Superpassage at chain 106	660				
	3- Do at chain 139 for Andichi urani	420				
	4- Drop & Superpassage combined at chain 153 - 5.B.Chl	520				
	5- Syphon Culvert at chain 164	1350				
	6- Under tunnel at chain 264 to cross the Alathur Surplus Odai	540				
	7- Two Palmyrah spouts at chains 49 & 175 respectly each Rs. 65-	130				
	Total I. Works		6300			
	II. Establishment		1449			
	III. Tools & plant		1			
	Total Estimate		7750			

Station

Dated 188 .

[signature] Lt Col R.E.

Supdg ~~Executive~~ Engineer,

5.3.98 6th Circle

P. W. D. Madras.
Form No. M[illegible] g.

REFERENCE TO MADRAS P. W. D. CODE.

CHAPTER VII—PARAS 968 & 968 A.

ESTIMATE FORM—ABSTRACT CLASSIFIED.

IRRIGATION.

Sixth CIRCLE.

DIVISION—Madura

DISTRICT—Madura

To accompany the Detailed Estimate No. of 188 -8 , for * Regrading 5th Branch Channel & Constructing cross drainage works.

* Here enter the Name and Description of work in full.

CHIEF ENGINEER FOR IRRIGATION. 8 MAR 1898 No. 25

3435/28

334. P.D.

Enclo No. 5. to S. E. 6th No 334. P.D. 5-3-98

No. 334. R.D.

OFFICE OF THE SUPERINTENDING ENGINEER,
6TH CIRCLE,
Trichinopoly, 5th March 1898.
D/7

From
Lt. Col. C. V. Boddy, R.E.
Superintending Engineer,
6th Circle.

To
The Chief Engineer,
for Irrigation

SIR,

19 ENCLOSURES. ×
1. Survey
2. Sheets of Longl. Section
1. General Estimate
1. Classified abstract
7. Masonry plans (tracings)
7. Estimates for individual works
19

× Sent Separately

I have the honor to forward for your approval and sanction plans & estimates, the latter amounting to Rs 6,300, for re-grading the 5th Branch channel taking off from the Periyar Main Channel at 20 miles and 500 ft. and for the Construction of cross drainage works in it.

2. It will be seen from the accompanying map that the supply and surplus channels of the numerous tanks, both Government and Inam, through which the branch channel runs have not been provided with permanent cross drainage works, nor has provision been made in the Project estimate for these works except for one near the head of the channel. It is indispensable to bank the channel where it passes through inam tanks and also to enable

water to be sent down quickly to meet requirements at the tail end of the channel, it is necessary that it should be also banked where it passes through maintained Govt tanks. It therefore becomes necessary to construct masonry cross drainage works in the present gaps, the existence of which is considered detrimental to the interests of the channel.

3. A list of such works as are now proposed is appended to the estimate; the statement also shows works that have been already sanctioned & completed and those still under Construction. The total cost is estimated to be ₨ 6,300, & the expected return at ₨ 5 per acre is ₨ 7,000. The probable date of completion of the works is 31st March 1899. The report attached to the estimate for each individual work gives further information on the proposed work. The work is classed as remunerative.

I have the honor to be
Sir,
Your most obedt Servant.

O. T. Woolley Lt.Col. R.E.
Supdg Engineer Circle

CHIEF ENGINEER
FOR IRRIGATION.
8-MAR. 1898
No. 25 Camp

O.W.S.1
3435/98